

Cell Biology Notesheets

by C. Kohn, Waterford WI



Name: _____ Hour _____ Date: _____

Date Assignment is due: _____ Why late? _____ Score: + ✓ -
Day of Week Date If your project was late, describe why

1. How is the flame of a candle like something that is alive?

2. How is the flame of a candle not like something that is alive?

3. What is a cell? What makes something a cell? List everything that is necessary:

4. What is necessary for something to be alive? List everything required for life:

Page through this notesheet. Then answer the questions below:

Circle one: I need to review my notes & practice before the quiz. Definitely – Yes – Sort of – No

Circle one: I have never seen or heard of some of these concepts. Definitely – Yes – Sort of – No

Circle one: This may be a challenging unit for me personally. Definitely – Yes – Sort of – No

Circle one: I may need extra strategies for some topics/vocab. Definitely – Yes – Sort of – No

Notes

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Directions: Use the accompanying PowerPoint (<http://bit.ly/cellbiologynotes>) to complete this sheet. This is graded on a + ✓ - scale.

1. What four things are necessary for something to be considered alive?

1 _____

2 _____

3 _____

4 _____

2. What is homeostasis? _____

3. The smallest _____ unit of matter is the _____

4. What are the three parts of the atom? List AND describe:

Part: _____ Description: _____

Part: _____ Description: _____

Part: _____ Description: _____

5. What would happen to the charge of an atom if it lost an electron? _____

6. Opposite charges are _____ to each other; similar charges _____ each other

7. Atoms group together to form _____.

8. What is an example of a molecule? _____

Draw this molecule to the right →→→→→→→→→→→→→→→→

9. When atoms form molecular bonds, they usually _____

10. To break apart a molecule, you _____

11. What is a macromolecule? _____

12. What is a common example of a macromolecule? _____

13. At the molecular level, proteins are _____

a. Proteins are like _____

14. Cells are _____

15. What are cells made of? _____

16. What is an organelle? _____

17. List AND describe 5 organelles of a cell:

Organelle: _____ Description: _____

Organelle: _____ Description: _____

Organelle: _____ Description: _____

Organelle: _____ Description: _____

Organelle: _____ Description: _____

18. What is a tissue? _____

19. What is an organ? _____

20. What is a system? _____

21. All living things require _____ to be _____.

22. Cells need energy to _____ such as _____

23. What do all living cell use as their primary source of energy? _____ What is ATP? _____

24. ATP is sort of like a _____ How so? _____

25. List the 2 most important differences between ATP and ADP: _____

26. How is uncharged ADP recharged back into ATP? _____

27. What is the “charger” that turns ADP back into ATP? _____

28. What goes into ATP Synthase? _____ What comes out of ATP Synthase? _____

29. Where is ATP Synthase mostly found? _____ Where is it also found? _____

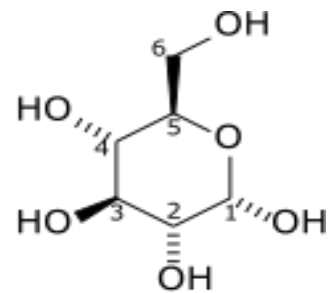
30. ATP Synthase is like a tiny _____. What happens every time this
“wheel” turns? _____

31. What turns the ‘wheel’ of ATP Synthase? _____

Where does this come from? _____

32. In the image to the right, circle what powers ATP Synthase → → → → → → →

33. After it powers the wheel, each hydrogen atom must be _____
from the mitochondria.



34. What would happen if hydrogen was not continuously removed from the mitochondria? _____

35. What removes the used hydrogen from the mitochondria? _____

36. What forms and is breathed out when oxygen binds to two hydrogen atoms? _____

37. What would happen if we stopped consuming foods that are rich in hydrogen? _____
_____ Why would this happen? _____

38. What would happen if our mitochondria did not have access to oxygen? _____
_____ Why would this happen? _____



This page is designed to help raise your grade while enabling you to develop skills you will need for after high school. You will need to complete every question and blank in order to receive full credit for your notes. Note: if you cannot come up with a strategy to remember a difficult concept on your own, see your instructor for help.

1. What is a topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

2. What is a 2nd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

3. What is a 3rd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

4. Circle the most appropriate response. You will only be graded on whether or not you completed this section, so be entirely honest with yourself when completing this section.

Circle one: I used my notes outside of class to prepare for the quiz.

Definitely – Yes – Sort of – No

Circle one: I took extra notes in the margins for very difficult concepts.

Definitely – Yes – Sort of – No

Circle one: I created a personal strategy for at least three difficult items.

Definitely – Yes – Sort of – No

Circle one: I was very involved and actively studying during the quiz review.

Definitely – Yes – Sort of – No

Circle one: I think I will be satisfied with the quiz grade I received this week.

Definitely – Yes – Sort of – No

Circle one: I might need to meet with the instructor outside of class.

Definitely – Yes – Sort of – No